Requirements of the Water Framework Directive relevant for inland waterways

METEET workshop

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Water Framework Directive

- **Scope**

- Protection and management of **all waters**, including rivers, lakes, transitional-, coastal- and groundwater
- Covering all impacts on waters

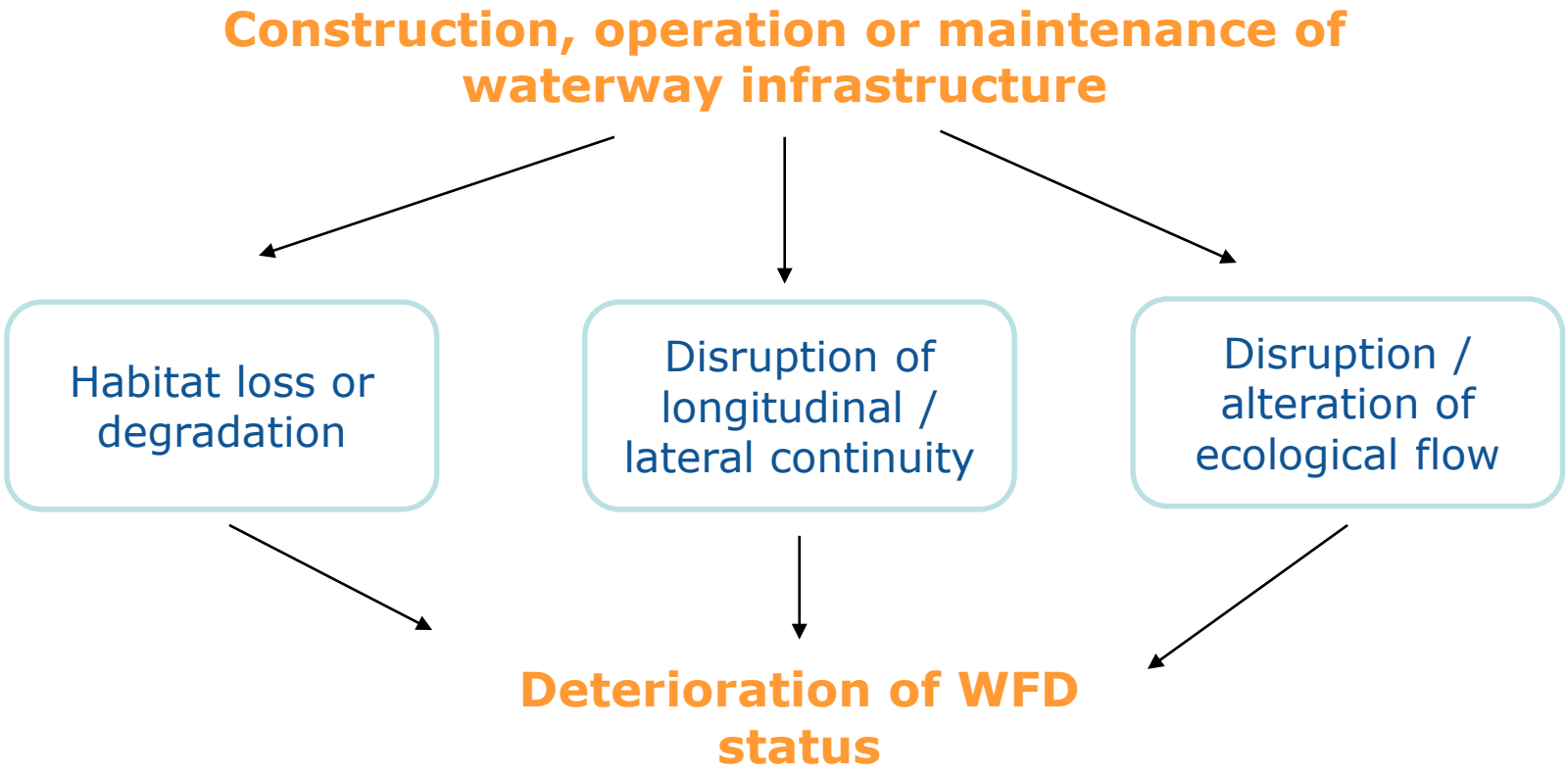
- **Objectives – by 2027 latest**

- Protect and enhance water bodies - **Achievement of good status / potential**
- **No deterioration** (Exemptions under certain conditions)

- **Tools**

- River Basin Management Plans and Programmes of Measures
- Governance and public participation at river basin level

Possible negative effects of waterway infrastructure



Overview of WFD requirements

1 – Requirements for new infrastructure

- Good environmental assessment
- Check if conditions of WFD met -> only projects meeting all conditions can be authorized
- Adapt project if necessary to meet criteria
- Addressed at the very start

2 - Requirements for existing infrastructures

- Set objectives (good ecological status or potential)
- Implement all necessary mitigation measures to reach them

Requirements WFD for new (navigation infrastructure) projects

New hydromorphological modification

or

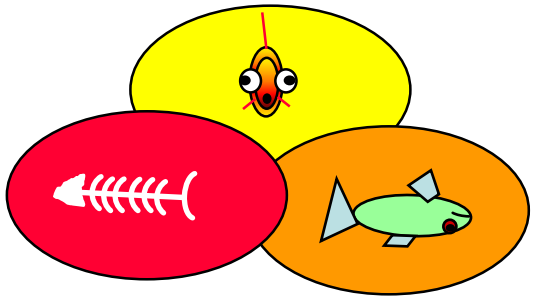
New sustainable human development activity

Can cause

Deterioration of water status/potential

or

Non-achievement of WFD objectives



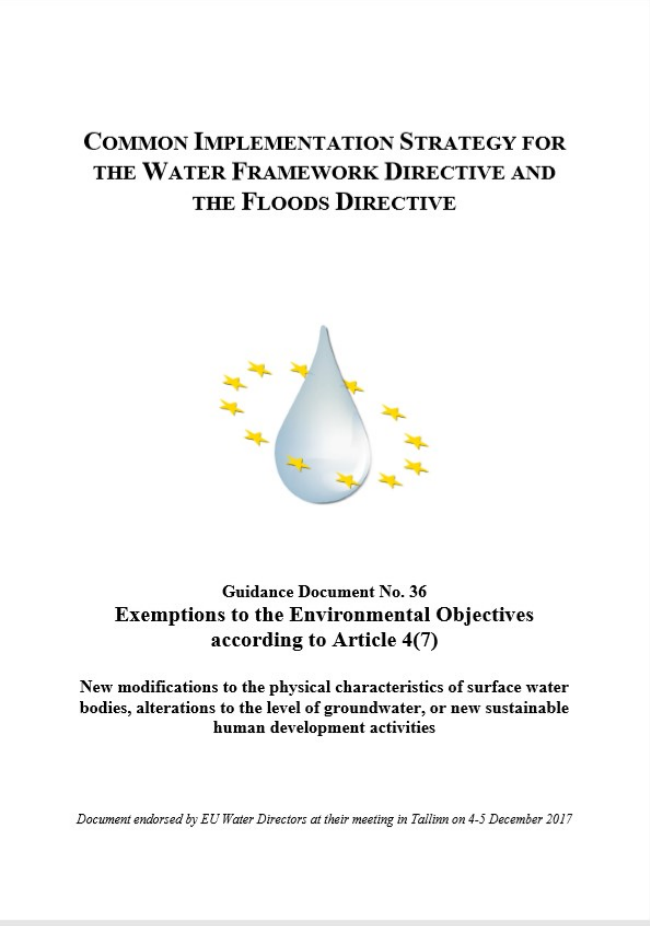
- ➔ **Requires exemption from WFD "no deterioration principle"**
- ➔ **Project cannot be authorised in case conditions not fulfilled**

New modifications preventing the achievement of **good water status** and/or **leading to deterioration** are only allowed under the following **conditions** (WFD Article 4.7):

- There are no significantly better environmental options
- The benefits of the project outweigh the benefits of achieving the WFD objectives or the development is of overriding public interest
- All practicable mitigation measures are taken to reduce impacts
- The project and the reasons for it are set out and explained in the River Basin Management Plans

➔ **Need for strategic approach**

Resources available



COMMON IMPLEMENTATION STRATEGY FOR THE WATER FRAMEWORK DIRECTIVE AND THE FLOODS DIRECTIVE

Guidance Document No. 36

Exemptions to the Environmental Objectives according to Article 4(7)

New modifications to the physical characteristics of surface water bodies, alterations to the level of groundwater, or new sustainable human development activities

Document endorsed by EU Water Directors at their meeting in Tallinn on 4-5 December 2017

https://ec.europa.eu/environment/water/water-framework/facts_figures/guidance_docs_en.htm

Jaspers

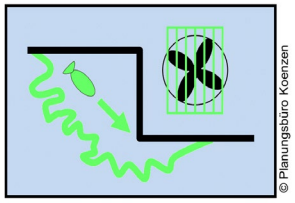
Water Framework Directive

Project assessment checklist tool

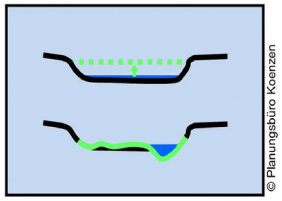
http://jaspersnetwork.org/plugins/servlet/documentRepository/searchDocument?category=Environmental%20issues

Requirements of WFD regarding existing infrastructure: Modernisation and improvement of ecological performance

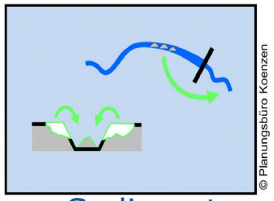
- If good status not achievable: water body should be designated as heavily modified water body – **Good Ecological Potential should be defined**
- Need for **ecological restoration measures** to achieve "good status/potential"
- Some example of mitigation measures



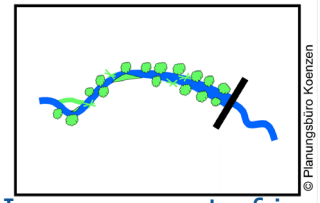
Fish migration aids



Environmental flow



Sediment management



Improvement of in-channel facility

Inter-relation

Good Ecological Status (GES) – Good Navigation Status (GNS)

WFD

Good Ecological Status / potential (GES - GEP)

Exemptions

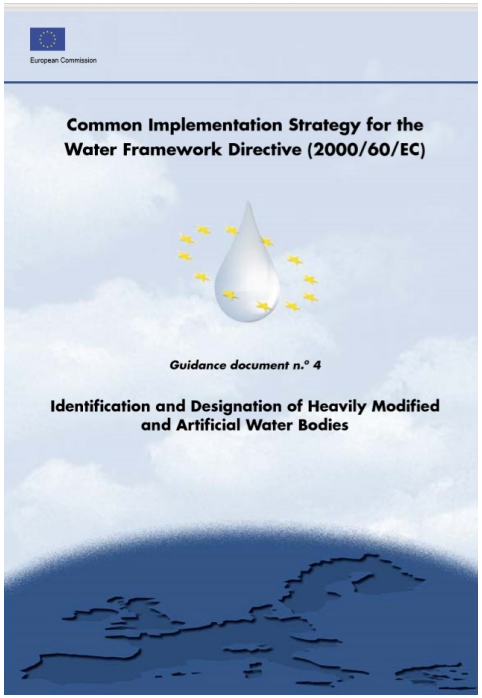
Inland navigation

Good Navigation Status (GNS)

Exemptions

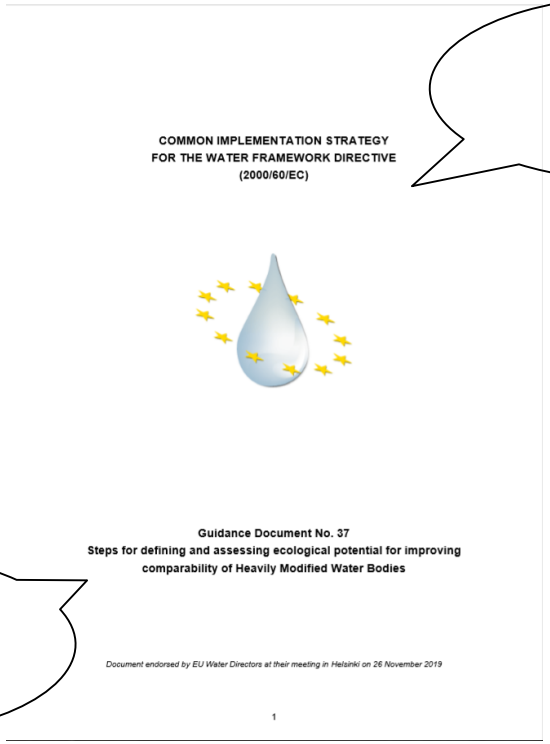
Resources available : 2 guidance document on heavily modified water bodies and GEP

Guidance n°4 on designation of heavily modified water bodies



https://ec.europa.eu/environment/water/water-framework/facts_figures/guidance_docs_en.htm

Guidance n°37 on setting good ecological potential



Includes a European library of measures

Translated in all EU languages

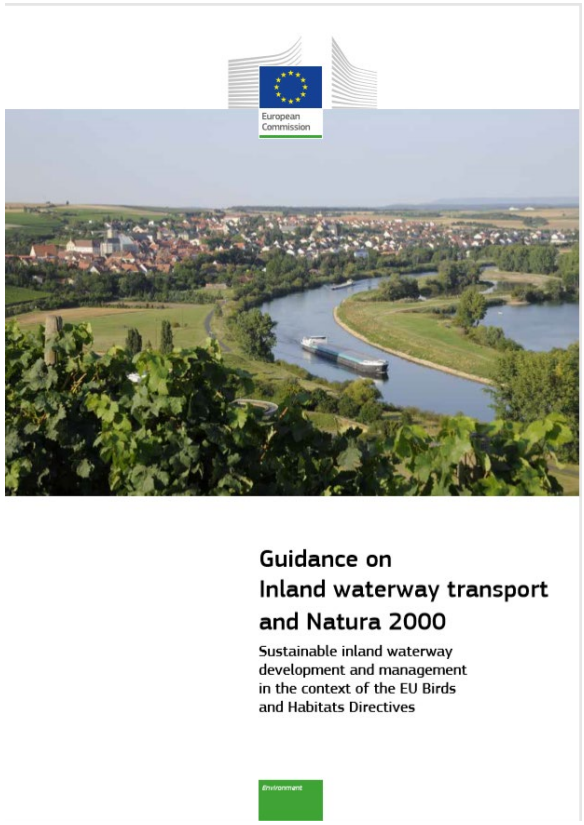
https://circabc.europa.eu/ui/group/9ab5926d-bed4-4322-9aa7-9964bbe8312d/library/d1d6c347-b528-4819-aa10-6819e6b80876/details

Resources available : European library of measures

DRIVER								PRESSURE	STATE (hydromorphological, physico-chemical conditions)										IMPACT					RESPONSE															
Uses								Specific nature of existing physical modification	Potential for direct or indirect effect on hydromorphological supporting elements at water body scale [++] always or usually [+] sometimes [o] rarely or never						Potential for direct or indirect effect on physico-chemical supporting elements at water body scale [++] always or usually [+] sometimes [o] rarely or never						Likelihood of effect on BQEs [++] strong or moderate likelihood [+] low likelihood				Overview of typical impacts on original ecology	Relevance of typical mitigation measures * [++] always or usually [+] sometimes [o] rarely or never													
Navigation; ports	Flood protection	Hydropower	Irrigation	Water supply	Recreation	Drainage	Urbanisation	See list below	Hydrology: quantity and dynamics of flow	Hydrology: connection to groundwaters	River continuity	Morphology: river width and depth	Morphology: river bed structure, substrate	Morphology: riparian zone structure	Thermal conditions	Oxygenation	Salinity	Acidification	Nutrient conditions	Specific pollutants	Phytoplankton	Macrophytes and phytobenthos	Benthic invertebrate fauna	Fish fauna	See discussion below	Fish migration aids	Environmental flow	Sediment management	Modification or management of operations or structures (e.g.	Riparian habitat enhancement	Improvement of in-channel diversity	Ecologically optimised maintenance	Increase habitat diversity; River depth and width variation improvement	Floodplains/off-channel/lateral connectivity improvement	Channel enhancement	Vegetation management / rehabilitation	Reduction negative effects of impoundment	Construction/technical measures to mitigate negative effects of
	+							Embankments, levies, dykes with (technical) floodplain used as manageable flood retention basin	++	o	+	+	+	+	o	o	o	o	o	o	o	+	++	++	see previous row	o	o	+	++	+	++	++	++	++	+	+	o	o
+	+							Shore-perpendicular structures (no impounding function) (e.g. groynes, jetties, breakwaters)	++	o	+	++	++	++	o	o	o	o	o	o	o	++	++	++	Shore-perpendicular structures lead in general to modifications in the flow and flow patterns. They also lead to erosion, river	o	o	+	++	++	+	++	+	++	++	++	o	o
+								Shore-parallel, submerged or partly submerged structures (e.g. training walls, breakwaters)	++	o	+	++	++	++	o	o	o	o	o	o	o	++	++	++	Modified (concentrated) flow or discharge, changed substrate and associated habitat and changed riparian	o	o	+	++	++	+	++	+	++	++	++	o	o
+					+			Port, harbour, marina infrastructure (e.g. pontoons, moorings)	++	o	+	++	++	++	+	+	o	o	+	+	+	++	++	++	Loss of continuity, changed riparian substrate and reduced fine sediment input, loss of fish	o	o	+	++	+	+	++	o	+	o	+	o	o
+	+				+		+	Riparian vegetation (e.g. tree removal)	o	+	+	++	+	++	++	+	o	+	+	o	+	++	++	++	Removal of riparian vegetation results in direct riparian habitat loss (incl. transversal and	o	o	o	o	++	++	o	++	+	+	++	o	o
		+	+	+				Additional flow from intra- or inter-catchment transfers	++	+	+	+	+	+	+	+	+	+	+	+	+	++	++	++	Intra- of inter-catchment transfers involve a flow reduction in the source	o	++	+	++	+	+	++	+	+	+	+	o	o

https://circabc.europa.eu/ui/group/9ab5926d-bed4-4322-9aa7-9964bbe8312d/library/67f969f9-5abe-4765-a952-2f8e2bf5b664/details

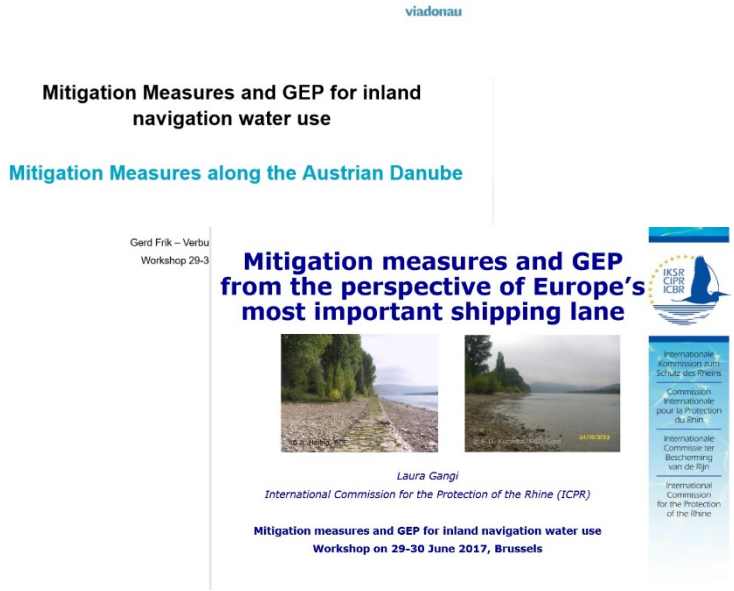
Resources available : planning and mitigation measures



https://ec.europa.eu/environment/nature/natura2000/management/docs/iwt_en.pdf

Workshop on mitigation measures and GEP for Inland Navigation (2017)

Presentations and report available



https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp

CIS WG ECOSTAT 2020-2021

Hydromorphology: ongoing and planned activities

1. **Development of a guidance on sediment management –** by end 2021

2. **Comparison of methods to set good ecological potential** – on the basis of the method provided in the guidance – by end 2021 and after

Thank you!

More information
CIS Guidance Documents: http://ec.europa.eu/environment/water/water-framework/facts_figures/guidance_docs_en.htm
Contact : jeanne.boughaba@ec.europa.eu